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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,679	03/30/2000	Greg Linden	249768021US	8745

25096 7590 01/09/2008

PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
CUFF, MICHAEL A	
ART UNIT	PAPER NUMBER
3627	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GREG LINDEN

Appeal 2007-0702
Application 09/538,679
Technology Center 3600

Decided: January 9, 2008

Before HUBERT C. LORIN, ANTON W. FETTING, and JOSEPH A. FISCHETTI, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Greg Linden (Appellant) seeks review under 35 U.S.C. § 134 of a Final Rejection of claims 1-36, 56, and 57, the only claims pending and not withdrawn in the application on appeal.[1]

[1] Claims 42-53 are cancelled and claims 37-41 and 54-55 are withdrawn.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We AFFIRM-IN-PART.

The Appellant invented a way for automatically identifying similar purchasing opportunities. For example, for an initial auction, the invention can identify auctions, or purchasing opportunities of other types, that offer the same or a similar item, similar prices or other terms (Specification 2:14-17).

Descriptive information about an initial purchasing opportunity is used to identify purchasing opportunities that are similar to the initial purchasing opportunity. The descriptive information may describe the item offered, as well as other terms of the purchasing opportunity, such as price, availability, seller identity or location, purchasing opportunity type (Specification 2:18-24).

Initially, key words occurring in the descriptive information for an initial purchasing opportunity are identified whose occurrence tend to best differentiate the initial purchasing opportunity from others. Then a score is attributed to each key word quantifying this tendency. In a preferred embodiment, key words are identified and scores attributed using the inverse document frequencies of the terms occurring in the descriptive information for the initial purchasing opportunity. The inverse document frequency of a term measures the fraction of occurrences of the term among the descriptive

information for all of the purchasing opportunities that occur in the descriptive information for the initial purchasing opportunity. For example, if a particular term occurred three times in the descriptive information for the initial purchasing opportunity and occurred 100 times in the descriptive information for all of the purchasing opportunities, that term would have an inverse document frequency of 3%, or .03 (Specification 2:25-3:9).

The descriptive information is searched for all of the purchasing opportunities to determine, for each key word, which purchasing opportunities' descriptive information contains the key word. Then similarity scores are generated for at least some of the other purchasing opportunities by, for each such purchasing opportunity, summing the scores of key words that occur in the purchasing opportunities (Specification 3:10-17).

The purchasing opportunity scores may then be used to order the purchasing opportunities based upon their level of similarity to the initial purchasing opportunity (Specification 3:18-27).

An understanding of the invention can be derived from a reading of exemplary claims 1 and 2, which are reproduced below [bracketed matter and some paragraphing added].

> 1. A method in one or more computer systems for identifying auctions offering units of the same item, comprising:
>
> [1] displaying information about a first auction,
>
> the information including a description of a first item unit offered in the first auction;

[2] receiving user input requesting information about other auctions offering item units that are units of the same item as the first item unit;

[3] determining,

for the description of the first item unit

among descriptions of item units

offered in a group of auctions including the first auction,

the inverse document frequency of terms occurring within the description of the first item unit;

[4] selecting a plurality of terms

within the description of the first item unit

having the largest inverse document frequencies;

[5] for each of the selected terms,

conducting a search for auctions in the group

whose item descriptions contain the selected term;

[6] for each auction found in at least one of the conducted searches,

determining which of the selected terms occur in the auction's item description;

[7] identifying

as an auction offering an item unit that is a unit of the same item as the first item unit[,]

an auction among the found auctions

where the sum of the inverse document frequencies of the selected terms that occur in the item description for the auction exceeds a threshold; and

[8] displaying information about the identified auction.

2. A method in a computer system for identifying purchasing opportunities within a set of purchasing opportunities that are similar to a distinguished purchasing opportunity, the distinguished purchasing opportunity having descriptive information associated with it, comprising:

[1] for each of a plurality of terms occurring in the descriptive information associated with the distinguished purchasing opportunity,

generating a term score

reflecting the extent to which

the occurrence of the term in the descriptive information associated with the distinguished purchasing opportunity

differentiates

the distinguished purchasing opportunity from other purchasing opportunities in the set;

[2] selecting as key words a plurality of terms having the highest term scores;

[3] identifying purchasing opportunities of the set containing one or more key words;

[4] establishing a purchasing opportunity score

for each identified purchasing opportunity

by summing the term score of the one or more key words occurring in descriptive information associated with the identified purchasing opportunities; and

[5] displaying information about one or more of the identified purchasing opportunities.

This appeal arises from the Examiner's Final Rejection, mailed June 14, 2004. The Appellant filed an Appeal Brief in support of the appeal on May 9, 2005. An Examiner's Answer to the Appeal Brief was mailed on May 19, 2006. A Reply Brief was filed on July 19, 2006. The Appellant presented arguments telephonically at a hearing on December 19, 2007.

PRIOR ART

The Examiner relies upon the following prior art:

Ishikawa	US 5,848,407	Dec. 8, 1998
Sato	US 6,212,517 B1	Apr. 3, 2001

Phillips Semiconductors; PIP for Compandor SA571 , http://www.kwantlen.bc.ca/electroncis/eltn2319/edata/lab/datasheets/compandor571.html (last visited Aug. 27, 2003).

REJECTIONS

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1-36, 56, and 57 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

ISSUES

The issues pertinent to this appeal are

- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1-36, 56, and 57 under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

The pertinent issues turn on whether (1) the claim 1 limitation of a same item is enabled and definite, and whether (2) the art describes the use of an inverse document frequency as recited in claim 1, and whether (3) the art describes the use of terms scores as recited in claim 2.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Claim Construction

1. The disclosure contains no lexicographic definition of "same."

2. The ordinary and customary meaning of "same" is (1) being the very one; identical; (2) similar in kind, quality, quantity, or degree; (3) conforming in every detail; or (4) being the one previously mentioned or indicated; aforesaid.[2]

Phillips

3. Phillips is an electronic manufacturer's sales information sheet describing a particular electronic device referred to as model SA571 of a compandor.[3]

Sato

4. Sato is directed toward a subsystem of a document retrieval system for receiving a list of documents (or texts) selected from a text base and providing a list of keywords ranked in order of importance in the selected text group (Sato 1:7-11).

5. Sato describes a computation of a degree of importance for each search term that is based upon, among other variables, an inverse document frequency for that term. Sato performs a search based upon the degree of importance of terms (Sato 5:58 – 7:33).

6. Sato does not describe identifying information based on a measure exceeding a threshold.

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[2] *American Heritage Dictionary of the English Language* (4th ed. 2000).
[3] A compandor is a combination of a signal compressor and expander, each of which may be used independently (www.atis.org/tg2k/_compandor.html).

Ishikawa

7. Ishikawa is directed toward a hypertext document retrieving apparatus in which a plurality of hypertext documents likely to meet a user's retrieval request are retrieved from a large volume of hypertext documents and are presented to the user (Ishikawa 1:7-12).

8. Ishikawa describes a computation of a product for each search term of an occurrence frequency (TF) with an inverse document frequency (IDF). Sato performs a ranking of results based upon these products of the terms (Ishikawa 7:45 – 8:9). This ranking may also be on the sum of the products (Ishikawa 11:31-40).

9. Ishikawa describes a user entering keywords for a search, and documents containing one or more of those keywords are retrieved. These documents are then ranked as in FF .

10. Ishikawa does not describe identifying information based on a measure exceeding a threshold.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Enablement

The test of enablement is whether one reasonably skilled in the art could make and use the claimed invention based on the specification coupled with information known in the art without undue experimentation. *Hybritech Inc. v. Monoclonal Antibodies, Inc.,* 802 F.2d 1367, 1384 (Fed. Cir. 1986), *cert. denied,* 107 S.Ct. 1606 (1987).

Indefiniteness

If a claim is amenable to construction, "even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree," the claim is not indefinite. *Exxon Res. & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1729-30 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: "[(1)] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved." 383 U.S. at 17. *See also KSR Int'l v. Teleflex Inc.*, 127 S.Ct. at 1734. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, at 1739.

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or [in] a different one. If a person of ordinary skill [in the art] can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 1740.

"For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.*

"Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 1742.

ANALYSIS

Claim 1 rejected under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

The Examiner has failed to make out a prima facie case of a lack of enablement. As best we understand it, the Examiner takes the position that the claimed method is inoperable if the term "same" used in claim 1 means identical. However, the test for enablement is whether one reasonably skilled in the art could make and use the claimed invention based on the specification coupled with information known in the art without undue experimentation, not whether the Examiner has interpreted the claim so as to read on an inoperable embodiment. The Examiner does not appear to have considered the Specification and thus has not established that one reasonably skilled in the art could *no*t make and use the claimed invention based on the specification coupled with information known in the art without undue

experimentation. It is examiner's burden to show that one skilled in the art would have to resort to undue experimentation in order to practice the invention as broadly claimed. See *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971).

The Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

Claim 1 rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

The Examiner found that the Appellant gave the word "same" a meaning different from identical, and further found the use of the word "same" to be indefinite because claim 1 is not specific regarding which definition applies (Answer 5).

The Appellant contends that its use of the term "same" in the context of "units of the same item" is consistent with its ordinary and customary meaning. Taking an item example of the Specification, a same item might be an item of the exact same model. This understanding of the term "units of the same item" is consistent both with the ordinary meaning of the term "same" and with the use of the term in the Specification itself (Appeal Br. 7:Bottom ¶ - 8:Top ¶).

We agree that one of ordinary skill would have known that a same item would be something like an item with the same model number.

Although this is merely an example, one of ordinary skill in sales and auctions would understand the word "same" applied to "item" to be within the context of the items sold or auctioned. While the term is broad, it is amenable to construction.

The Appellant has sustained its burden of showing that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1-36, 56, and 57 rejected under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

Claim 1

The Appellant argues claims 1, 56, and 57 as a group.

Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that Phillips described elements [1], [2], and [8], except for being applied to an auction, but took official notice of the notoriety of auctions. The Examiner found that Sato described elements [3] and [4], and that Ishikawa describes elements [5], [6], and [7] (Answer 5-6).

The dispositive Appellant contentions are that (1) neither reference selects a plurality of terms within the description of the first item unit having the largest inverse document frequencies (Reply Br. 9:First full ¶); and (2) neither reference identifies something where the sum of the inverse

document frequencies of the selected terms that occur in the item description for the auction exceeds a threshold (Reply Br. 9:Bottom ¶ - 12:First ¶).

The Examiner cites Sato column 7, lines 27-30 for the largest inverse document frequency selection. The Appellant argues this portion of Sato examines Sato's degree of importance, not its inverse document frequency. We agree (FF). Since the Examiner has not shown that either reference selects terms having the largest inverse document frequency selection, the Examiner has not made a prima facie case as to element [4].

The Examiner cites Ishikawa column 7, line 53 to column 8 line 9 and column 11, lines 33-45 for identifying information where the sum of the inverse document frequencies of the selected terms that occur in the item description for the auction exceeds a threshold. The Appellant argues this portion of Ishikawa examines Ishikawa's importance degrees, not its inverse document frequency, and the Examiner never has a finding as to identifying by exceeding a threshold. We agree (FF , , and). Since the Examiner has not shown that either reference identifies information where the sum of the inverse document frequencies of the selected terms that occur in the item description for the auction exceeds a threshold, the Examiner has not made a prima facie case as to element [7].

The Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1, 56, and 57 under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

Claim 2

The Appellant argues claims 2-36 as a group.

Accordingly, we select claim 2 as representative of the group.

The Examiner found that Phillips described identifying purchasing opportunities and element [5]. The Examiner found that Sato described elements [1] and [2], and that Ishikawa describes elements [3] and [4] (Answer 7-8).

The Appellant contends that (1) Ishikawa's key words are (1a) selected by a user rather than from an item description, and (1b) are computed differently than as computed in the Appellant's Specification (Reply Br. 13:First ¶); (2) that Ishikawa fails to use term scores in the two distinct ways recited in claim 2 of (2a) selecting keywords and (2b) scoring purchasing opportunities (Reply Br. 13:Bottom ¶ - 14:Top ¶); and (3) Phillips relies on product categories rather than product descriptions to find products (Appeal Br. 15).

As to the arguments regarding the search terms, the scope of the claim is not commensurate with argument (1a) because the terms a user enters in Ishikawa (FF), within the context of searching for an item as a purchasing opportunity, such as in Phillips, would be descriptive information associated with a a purchasing opportunity as in claim 2. Whether the terms are selected by a user makes terms no less associated with the item the terms describe. Whether the score for search terms are computed as in the Appellant's Specification is not pertinent since claims are construed

according to their broadest reasonable interpretation during examination, and claim 2 does not specify the steps in scoring.

As to the arguments regarding the use of the scores, although both Sato and Ishikawa score keywords, it is Sato, not Ishikawa, that ranks keywords for searching (FF) and Ishikawa that ranks the results based on the sum of keyword scores (FF) that would represent purchasing opportunities within the context of searching for such opportunities. Thus, Sato teaches choosing the best search terms as in claim elements [1] and [2] and Ishikawa describes ranking results as in claim elements [3] and [4].

As to the argument regarding product category versus product description searching, although Phillips does not explicitly recite searching for items, the very presence of Phillips information in a web based document suggests one of ordinary skill would have alternatively employed the ubiquitous search engines such as in Sato and Ishikawa to find products if one was not already on the Phillips web site.

The Appellant has not sustained its burden of showing that the Examiner erred in rejecting claims 2-36 under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato and Ishikawa.

CONCLUSIONS OF LAW

The Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1, 56, and 57, but has not sustained its burden of

showing that the Examiner erred in rejecting claims 2-36, under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

DECISION

To summarize, our decision is as follows:

- The rejection of claim 1 under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure is not sustained.
- The rejection of claim 1 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention is not sustained.
- The rejection of claims 1, 56, and 57 under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa is not sustained.
- The rejection of claims 2-36 under 35 U.S.C. § 103(a) as unpatentable over Phillips, Sato, and Ishikawa is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

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2PERKINS COIE, LLP
3PATENT-SEA
4P.O. BOX 1247
5SEATTLE, WA 98111-1247

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